



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/549,342	02/05/2007	Leonid Kalika	STRX-109(P)(US)	6704	
7590	09/24/2009	EXAMINER			
KELLEY DRYE & WARREN LLP 400 Altantic Street, 13th Floor Stamford, CT 06901				NG, CHRISTINE Y	
ART UNIT				PAPER NUMBER	
2416					
MAIL DATE				DELIVERY MODE	
09/24/2009				PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/549,342	KALIKA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	CHRISTINE NG	2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 05 June 2009.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-5 and 38-54 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-5 and 38-54 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 14 September 2005 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_.  
 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_\_.  
 5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 4, 5, 38, 39, 41, 44, 45, 48, 51 and 52 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Publication No. 2004/0100923 to Yam.

Referring to claims 1, 41 and 48, Yam discloses an apparatus (Figures 2 and 3, WISE) comprising:

A base module (Figure 6, physical layer 30) positioned within a stack (Figure 6), said stack being associated with a node (Figures 2 and 3, WISE) of a wireless local area network (Figure 1, WAN 12 and WLAN 14), and said wireless local area network being configured to communicate with an external wired network (Figure 1, Internet 16).

Refer to Sections 0032-0036.

An antenna module (not shown) positioned within said stack. As shown in Figures 1 and 2, WISE must have an antenna to facilitate wireless communication between mobile device 24 and WLAN 26 layer interfacing with WLAN 14 or WAN 28 layer interfacing with WAN 12. Refer to Section 0034.

One or more wireless modules (Figures 2 and 3, WLAN 26 and WAN 28) positioned within said stack and coupled to the base and antenna modules. Refer to Section 0034.

Wherein each of said wireless modules is configured to perform automatic self-discovery by automatically determining a position of said each of the wireless modules within the stack. Each wireless module (Figures 2 and 3, WLAN 26 or WAN 28) must inherently know its position in the stack in order to receive and transmit information to their respective corresponding layers below it (Figures 3 and 5, 802.11 PHY or 3G PHY) and layers above it (Figure 6, 802.1D Bridging 64). Refer to Sections 0032-0036.

By automatically identifying other wireless modules in the stack. Since only one of the wireless modules (Figures 2 and 3, WLAN 26 or WAN 28) can be communicating with mobile device 24 at a time, each wireless module must inherently know the existence of the other wireless modules in the stack. Refer to Sections 0032-0036.

By automatically determining whether each of said wireless modules is configured to communicate with said external wired network via a wired or wireless communication link. WAN 12 and WLAN 14 are connected either wirelessly or by wired connections to Internet 16. Refer to Section 0032, lines 1-5.

Referring to claims 4, 44 and 51, Yam discloses wherein at least two of said one or more wireless modules employ different short-range wireless protocols (WAN and WLAN protocols). Refer to Sections 0014 and 0032-0034.

Referring to claims 5, 45 and 52, Yam discloses wherein said different short-range wireless protocols comprise at least two different IEEE 802.11-type protocols

(WLAN (802.11) or WAN (GSM/GPRS/CDMA/WCDMA) using 802.1p/802.1D/802.11 standards), or a combination of at least one of said one or more IEEE 802.11-type protocols and a BLUETOOTH protocol (not disclosed in reference and claim only requires one of the limitations since it is in alternative “or” form). Refer to Sections 0014 and 0032-0034.

Referring to claims 38, 46 and 53, Yam discloses wherein said apparatus is configured to communicate wirelessly with one or more mobile units (Figure 2, mobile device 24) within said wireless local area network. Refer to Sections 0032-0034.

Referring to claim 39, Yam discloses wherein said apparatus is configured to provide connectivity to the said external wired network. Refer to Sections 0032-0034.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 2, 40, 42, 47, 49 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over anticipated by U.S. Publication No. 2004/0100923 to Yam in view of U.S. Publication No. 2003/0172142 to Su.

Referring to claims 2, 42 and 49, Yam et al do not disclose wherein said determining whether said each of said wireless modules is configured to communicate with said external wired network via a wired or wireless communication link is provided

by determining whether a Dynamic Host Configuration Protocol was received wirelessly or via a wired Ethernet connection.

Su discloses in Figure 1 a system that combines a wired Ethernet LAN and a wireless LAN. A DHCP server is set up by splitting a C-class private network protocol into halves on a DHCP basis and assigning 125 IP address to the wired Ethernet LAN and the wireless LAN, respectively. By assigning separate IP addresses, the DHCP can determine whether or not incoming messages are transmitted via the wired Ethernet LAN or the wireless LAN. Refer to Sections 0011, 0024, 0032, 0033 and 0035. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include wherein said determining whether said each of said wireless modules is configured to communicate with said external wired network via a wired or wireless communication link is provided by determining whether a Dynamic Host Configuration Protocol was received wirelessly or via a wired Ethernet connection. One would have been motivated to do so to determine whether a connection is wired or wireless using the conventional DHCP protocol.

Referring to claims 40, 47 and 54, Yam discloses wherein a role of said each of said wireless modules, to be an access point or a wireless backhaul, is determined by said Dynamic Host Configuration Protocol being received wirelessly or via the wired ETHERNET connection (refer to the Su rejection part of claims 2, 42 and 49), by said position of said each of the wireless modules within said stack (different protocols within the stack are connected either wirelessly or by wired connections to Internet 16; Sections 0014 and 0032-0034) and by functionality of said other modules of said stack

identified using said self-discovery (different protocols within the stack are connected either wirelessly or by wired connections to Internet 16; Sections 0014 and 0032-0034).

5. Claims 3, 43 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over anticipated by U.S. Publication No. 2004/0100923 to Yam in view of U.S. Publication No. 2003/0123457 to Koppol.

Whitehill et al disclose wherein at least one of said wireless modules comprises a finite state machine configured to perform said automatic self-discovery.

Koppol discloses in Figures 3 and 4 finite state machines that are used by nodes during the neighbor discovery process. Refer to Sections 0034, 0038, 0042, 0043 and 0060. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include wherein at least one of said wireless modules comprises a finite state machine configured to perform said automatic self-discovery. One would have been motivated to do so so that nodes can perform the discovery method according to steps in a state diagram.

### ***Response to Arguments***

6. Applicant's arguments with respect to claims 1-5 and 28-37 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTINE NG whose telephone number is (571)272-3124. The examiner can normally be reached on M-F; 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

C. Ng  
September 16, 2009

/Ricky Ngo/  
Supervisory Patent Examiner, Art Unit 2416